

United States Agency for International Development Bureau for Africa (USAID/AFR) BAA for Sustainable Development in Sub-Saharan Africa

ADDENDUM 02 - IMPLEMENTING A <u>LE</u>ARNING <u>A</u>GENDA TO <u>R</u>ECORD THE <u>N</u>UANCES OF <u>C</u>LIMATE <u>I</u>NFORMATION <u>S</u>ERVICES (I.LEARN.CIS) IN SUBSAHARAN AFRICA

I. BACKGROUND

This project addresses the potential to address climate change impacts on rural, rainfed agriculture in Sub-Saharan Africa through improved climate and weather information.

A. Overview

With a vision of eliminating extreme poverty in Africa, USAID's Africa Bureau seeks to incorporate new ideas that will directly and positively influence its programs and policies in Sub-Saharan Africa (SSA), including how to decrease the vulnerability of Africans to climate change. USAID recognizes that achieving sustainable solutions to the challenge of eliminating extreme poverty in a changing climate will require collaboration across a range of partners in the public and private sectors. It will also require developing new and innovative solutions that build the adaptive capacity of rural agricultural communities to both near-term climate variability as well as longer-term climatic shifts. As our ability to accurately predict weather and climate variations over longer time scales increases, the provision of improved weather and climate information to rural communities offers an attractive pathway to significantly reduce climate change vulnerability in SSA.

B. Climate Information Services as a Means to Reduce Vulnerability in Sub-Saharan Africa

According to the most recent report from the Intergovernmental Panel on Climate Change¹, Africa is one of the most vulnerable continents to climate change due to its high exposure to climate stress and low adaptive capacity (e.g., poor infrastructure, limited access to markets, high illiteracy rates). Impacts in SSA from a changing climate are projected to be both far reaching and spatially variable. Temperatures are expected to increase by 1° – 2.5° Celsius by 2100, pushing certain crops (e.g., maize, coffee) in some geographic areas beyond their thermal limits, resulting in significantly reduced yields. Projected changes in precipitation are less certain and more spatially variable. While total annual rainfall will increase in some areas and decrease in others, in most parts of SSA rainfall is expected to become more variable (both inter- and intraannually) and less predictable, negatively impacting agricultural yields and livelihoods.

¹ Africa. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change

Within many SSA countries a significant portion of their national GDP is generated by, and a large percentage of their rural population derives their livelihoods from, rainfed agriculture, which is highly sensitive to changes in rainfall. Rainfed agriculture tends to be especially important to the extreme poor, for whom even small changes in inter- or intra-annual rainfall can have devastating impacts. A recent World Bank report² suggests that climate change could push more than 100 million people, many living in rural SSA, back into extreme poverty over the next fifteen years. Failure to adequately address climate change, including changes in rainfall patterns, could jeopardize decades of development investments and improvements in livelihood conditions.

While a number of approaches exist to strengthen the adaptive capacity of rural communities and thus reduce their vulnerability to climate change, there is a growing interest in Climate Information Services (CIS), a concept that encapsulates the provision of climate and weather information at temporal and spatial scales relevant to decision makers. Programs focused on supporting rural, rainfed agriculture often seek to provide accurate, spatially resolved daily, tenday, and seasonal forecasts and advisories in a timely and accessible manner. CIS programs are attractive because they both address the immediate needs of rural communities (e.g., what will happen tomorrow, what will this rainy season be like), while also building the foundation of regional and country-wide systems to support adaptation to longer-term and larger-magnitude shifts in climate. However, while CIS programs are being developed or implemented in a number of SSA countries, there remains little objective information concerning (1) sustainable CIS models and systems, (2) the factors that affect the uptake and use of CIS products, or (3) the effectiveness of CIS programs in improving livelihoods.

II. OBJECTIVES & AREAS OF INTEREST

A. Objectives

Through this Addendum, USAID seeks to develop and implement a learning agenda to better understand how to support effective, sustainable, country-led CIS programs focused on agriculture in SSA. This learning agenda should take an innovative approach to generate new information, evidence, and learning on the *effective* and *sustainable* production, delivery and use of climate information to improve rural, rainfed agricultural decision-making and outcomes. The outputs of this learning agenda should be geared toward improving ongoing or planned CIS programs in SSA.

Within this broader learning agenda, USAID is particularly interested in information and learning that is relevant to its ongoing CIS programs in Senegal, Mali and Rwanda, as well as to supporting its resilience efforts in the Sahel (i.e., Burkina Faso, Niger, Senegal and Mali). Except for in the Sahel, this learning agenda should draw information and evidence from ongoing CIS activities, including those being implemented by USAID. Within the Sahel, this learning agenda could expand to include the application and testing of lessons learned elsewhere to support ongoing USAID resilience efforts.

 $^{^{\}rm 2}$ Managing the Impacts of Climate Change on Poverty, The World Bank, 2015.

B. Areas of Interest

Through this Addendum, USAID seeks to engage partners who can help in the co-creation of a robust learning agenda that generates the most insightful information and evidence toward supporting more effective and sustainable CIS programs, especially in current USAID priority countries and regions. The areas of interest outlined below are illustrative, but also indicative of USAID's current thinking. These areas of interest are not mutually exclusive, and proposed approaches could address one, some, or all of the areas of interest.

1) Sustainable CIS Models and Systems

Developing sustainable CIS models is essential to ensuring long-term adaptation support as many national meteorological agencies in SSA are being asked to recover their own operational costs, as well as the costs associated with maintaining and expanding their observational networks. Furthermore, not all national meteorological agencies have the technical or operational capacity to develop and disseminate accurate and spatially resolved CIS products to rural communities. At the same time, extension services in many SSA countries are underfunded, and lack the capacity to effectively deliver CIS products to rural communities. In some cases international and regional organizations exist (e.g., World Meteorological Organization, African Centre of Meteorological Applications for Development) that can complement and support national efforts to develop CIS products, while the private sector is beginning to be leveraged in several countries to deliver CIS products to rural decision makers. A greater understanding of different sustainable models and systems for the production, delivery and use of CIS in rural decision making is needed to ensure investments made today have a continued impact over the coming decades.

Illustrative Learning Questions:

- What sustainable models for the provision of CIS to rural communities currently exist across SSA? How can the private sector support the sustainable production and delivery of CIS products?
- What climate services are currently being provided in SSA?
- How can regional, national and sub-national efforts be integrated and sequenced to increase sustainability?
- What business models exist to help national meteorological agencies recoup their operating expenses? Who has a willingness-to-pay for CIS products, and what factors determine this willingness?

2) Factors Affecting Uptake and Use of Climate Information

Throughout SSA, people farm different crops, use different kinds of information received through various channels, are affected differently by climate change, and are constrained by different factors. Furthermore, people receiving the same information may make different choices depending on their specific circumstances and risk tolerance. These differences cause the uptake and use of CIS products to be dependent on many factors, including the availability (or lack thereof) of other agricultural resources, whether individual farmers have agency in decision making (e.g., women often do not determine which crops they grow), and whether they trust the source and understand the power, accuracy and limitations of the information. Given the large number of factors that may

affect the uptake and use of CIS products, USAID seeks to identify the relative importance of these factors and how that importance varies across SSA. Furthermore, USAID seeks to identify ways to reduce the barriers to and enhance the pathways for uptake. In developing this learning agenda, USAID is especially interested in ensuring it is both socially inclusive and gender sensitive.

Illustrative Learning Questions:

- What climate and weather information do rural farmers want and need? In what time frame, format, and language?
- How are farmers receiving other sources of information? How could CIS be layered on top of other information or agricultural delivery systems?
- What resources do rural farmers need to act on CIS products? How accessible or affordable do these resources have to be?
- What social, cultural or economic barriers to and pathways for uptake and use of CIS exist? What options exist to reduce these barriers or enhance these pathways?

3) Effectiveness of CIS Programs

As CIS products are probabilistic in nature, the benefits derived from these products vary with both the accuracy of the information (e.g., do the projections match what actually happens) as well as the magnitude of the deviation from normal (e.g., how much does the intra-annual rainfall deviate from a "normal" season). Developing an understanding of how effective CIS programs are at improving livelihoods requires looking beyond the uptake and use of CIS products to the measureable benefits realized by the beneficiaries. This is complicated by the fact that CIS products alone are often insufficient to produce significant livelihood improvements, especially among the extreme poor, as many rural farmers need additional resources (e.g., inputs, seeds, market information) in order to act on climate information. To account for this reality, USAID's CIS programs in Senegal and Mali are layered around larger Feed the Future agriculture programs, which are designed to facilitate access to a range of agricultural resources. Here, a greater understanding of and more evidence on the effectiveness of CIS programs to improve rural livelihoods (e.g., increase income, reduce periods of hunger) are needed, including methodologies for assessing impact over multiple years.

Illustrative Learning Questions:

- How does the effectiveness of CIS programs vary depending on whether the seasonal rainfall is above or below average? What, if any, are the negative effects of CIS programs on rural livelihoods and how can they be mitigated?
- How do CIS products affect investments made in other inputs and services?
- Which specific CIS products are associated with the greatest livelihood benefits?
- What are the most effective CIS delivery models and systems?

Embedded throughout this learning agenda is the need to identify the nuances on which the answers to the larger learning questions depend. Do they vary by country? By region? By socio-cultural factors such as age, gender, or culture? By governmental style, policies or investments? By specific changes in climate? By cropping system? Such a nuanced understanding is necessary

to identify the robustness of the lessons learned and evidence gathered, and thus its applicability to other regions and countries.

C. USAID is Not Seeking Through this Addendum:

- 1. Basic research (research directed towards fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts <u>without</u> specific applications towards processes or products in mind).
- 2. An impact evaluation. While USAID seeks to better understand the impact that CIS programs can have in SSA, USAID is aware that its current programs are not yet at a stage where an impact evaluation would be appropriate.
- 3. To create new CIS programs outside of a regional Sahel program. The intent here is to learn from ongoing programs and/or to apply this learning in order to complement ongoing CIS and resilience efforts in the Sahel.
- 4. Proposals that seek to address every possible question related to CIS programs. USAID acknowledges that there is an extensive list of outstanding questions and no activity will be able to answer them all. USAID seeks, instead, to work collaboratively with a range of organizations to develop a robust learning agenda that best achieves the objectives outlined above.

III. INSTRUCTIONS FOR SUBMITTING EXPRESSIONS OF INTEREST

USAID will review Expressions of Interest (EOI) in accordance with the instructions and evaluation criteria set forth in this Addendum.

EOIs must indicate the research or development idea(s) that will deliver potential solutions to the Objectives stated in Section II. Organizations are encouraged to collaborate with peer organizations that bring differing perspectives and/or comparative advantages. USAID is supportive of approaches which value collaboration as a component of the co-creation process.

USAID will accept multiple EOIs from a single organization.

A. General Instructions for the EOI

EOIs must be submitted in accordance with the following:

- 1. If a respondent does not follow the instructions set forth herein, the respondent's EOI may be eliminated from further considerations.
- 2. USAID will not pay for any EOI preparation costs.
- 3. EOIs must be submitted in English.
- 4. All EOIs submitted in response to this Addendum are due no later than the closing date and time indicated in this Addendum. Late EOIs will not be considered.
- 5. EOIs submitted in response to this Addendum will be received by electronic submission only. Facsimile or hardcopy submissions will not be accepted.

- 6. EOIs must be emailed to the USAID/AFR/SD/EGEA team at afrclimateservices@usaid.gov
- 7. The EOI must not exceed three (3) pages in length. EOIs longer than three (3) pages will not be considered.
- 8. Respondents must use 8.5 by 11 inch (or A4) paper, singled spaced, Times New Roman 12 point font, and have margins no less than one inch on the top, bottom, and both sides. Number each page consecutively.
- 9. The EOI must be in .pdf or .docx format.
- 10. The EOI must contain a header with the following information:
 - Title: BAA for Sustainable Development in Sub-Saharan Africa/Implementing a Learning Agenda to Record the Nuances of Climate Information Services (I.LEARN.CIS) in Sub-Saharan Africa
 - BAA Number: BAA-AFR-SD-2016/Addendum 02
 - Name of the respondent
 - Respondent contact person, address, telephone number, and email address
- 11. Questions in regards to the Addendum must be submitted via email only to the USAID/AFR/SD/EGEA team at afrclimateservices@usaid.gov. Questions must be submitted by March 11, 2016 at 5:00 PM Eastern Standard Time.
- 12. EOIs must be submitted by April 1, 2016 at 5:00 PM Eastern Daylight Time. The subject line of the email must contain "BAA-AFR-SD-2016/Addendum 02" and the name of the respondent.

B. Content of the EOI

- 1. Provide a brief description of your idea/approach as it applies to Section II of this addendum. Be sure to address:
 - a. How your idea will increase our understanding of effective and sustainable CIS systems in SSA, with particular regard to the areas of interest outlined in Section II
 - b. The potential impact your idea will have in SSA, including on USAID's programs, and
 - c. The manner in which your idea will be implemented.
- 2. Provide a brief description of your organization's experience and/or expertise in the idea/approach you are proposing. Please address your ability to harness the comparative advantages of other parties and collaborate with other organizations.
- 3. Provide the approximate duration of your proposed idea/approach.

4. Provide names of up to two (2) individual(s) nominated to participate in the cocreation workshop and discussions, as described in Section V of this Addendum. Describe why the individuals you are nominating are the best people to participate in the discussions to develop the ideas presented while working alongside USAID staff and other organizations selected to participate. **Note: Individuals whose focus is on business development of the respondent organization will not be considered for participation in these discussions.**

IV. EVALUATION CRITERIA

EOIs will be reviewed and selected for Stage 2 of the BAA process according to the following evaluation criteria:

- 1) *Idea/Approach*: How does the approach advance our understanding of CIS systems in SSA, especially in USAID priority countries and regions and in the areas of interest outlined in Section II, through the use of fresh, informed, innovative and realistic thinking, and how the applicant plans to use/generate supporting evidence and analysis.
- 2) *Impact*: The likelihood of generating substantial and robust learning around the development and implementation of CIS programs in SSA, especially in USAID priority countries and regions.
- 3) *Partnership Qualifications and Experience*: Strengths of your group as a partner, including the talent your organization would bring to the discussion.
- 4) *Diversity of Perspectives and Capabilities:* USAID seeks to bring together a diverse set of co-creators in collaboration in order to enable broader thinking and innovation. The selection of individual applicants will be with the goal of achieving this diversity, including inclusion of African-based organizations.
- 5) *Ability to Participate:* The availability of experienced individuals (up to two persons per submitting organization) to participate in the co-creation workshop to develop ideas alongside USAID staff and other organizations selected to participate.

Travel costs for participants will not be reimbursed by USAID. However, USAID will explore alternatives (e.g., teleconference, video conference) for those selected participants unable to physically travel to the co-creation workshop.

V. SPECIAL INSTRUCTIONS FOR PARTICIPATION

For EOIs that are deemed by USAID to have merit to continue to the Concept Paper stage under this Addendum (Stage 2, per the BAA), USAID will issue an invitation to collaborate to the potential partner(s). Collaboration will include the following.

1) Working together, USAID and the potential partner(s) will collaborate on a Concept Paper(s). It is during this phase of co-creation or co-design that the parties will begin to determine additional partners and resources to complement the project. The Concept Paper, generally 5-10 pages in length, will further detail and explain the project as initially provided in the EOI(s). Concept Papers will outline a concrete programmatic plan, including goals, methodology, focus areas, monitoring and evaluation, sustainability, gender considerations, timelines, personnel, and budget. During this stage,

- it is possible USAID will work with multiple partners to develop a single Concept Paper from multiple EOIs.
- 2) In order to initiate the Concept Paper drafting process, a co-creation workshop is tentatively scheduled for the week of May 16-20, 2016. The workshop is likely to be held in Washington, DC. USAID will make every effort to provide as much advance notice as possible regarding any change in meeting dates, and confirmation of the location.
- 3) Following the co-creation workshop, not all potential partners may move forward to Stage 3, per the BAA.

All terms and conditions set forth in the BAA are applicable to this Addendum.

[END]